

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Date of Report: 11/10/99

Date Received: 10/28/99

Project: Metro Self Monitor, PO# M62918

Date Samples Extracted: 11/08/99

Date Extracts Analyzed: 11/09/99

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE  
FOR CHROMIUM, COPPER, NICKEL, ZINC  
USING METHOD 6010**

**Samples Processed Using Method 3005A**

Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M62918	0.83	1.1	0.79	0.29
Method Blank	<0.05	<0.05	<0.05	<0.05

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**QUALITY ASSURANCE RESULTS  
FOR TOTAL METALS BY  
INDUCTIVELY COUPLED PLASMA (ICP)  
(METHOD 6010)**

Laboratory Code: 911031-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.15	0.14	7	0-20
Copper	mg/L (ppm)	0.25	0.21	17	0-20
Nickel	mg/L (ppm)	0.23	0.24	4	0-20
Zinc	mg/L (ppm)	<0.05	<0.05	nm	0-20

Laboratory Code: 911031-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	RPD
Chromium	mg/L (ppm)	5	0.15	103	101	80-120	2
Copper	mg/L (ppm)	5	0.25	95	97	80-120	2
Nickel	mg/L (ppm)	10	0.23	104	101	80-120	3
Zinc	mg/L (ppm)	5	<0.05	109	112	80-120	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	RPD
Chromium	mg/L (ppm)	5	111	112	80-120	1
Copper	mg/L (ppm)	5	109	108	80-120	1
Nickel	mg/L (ppm)	10	115	114	80-120	1
Zinc	mg/L (ppm)	5	114	115	80-120	1

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

(DH 10/28/99 AI,

## SAMPLE CHAIN OF CUSTODY

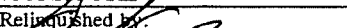

Company Alaskan Copper Works Contact GENAO A. Thompson  
Address 628 Franklin St  
City, State, Zip Seattle WA 98134  
Phone # 206-382-8829 FAX # 206-382-4309 Date 10/28/89

**PURCHASE ORDER #**

### PROJECT LOCATION

### SAMPLE DISPOSAL INFORMATION

☐ Dispose after 30 days  
☒ Return Samples  
☐ Call for Instructions

SIGNATURE	PRINT NAME	COMPANY	Date	Time
Relinquished by: 	GERALD A. Thompson	ACW	10/28/99	12:45
Received by: 	S - Osborn	F+B, Inc.	10/28/99	12:45
Relinquished by:				
Received by:				

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D.  
Charlene Jensen, M.S.  
Bradley T. Benson, B.S.  
Kurt Johnson, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044  
e-mail: fbi@isomedia.com

November 10, 1999

**DUPLICATE COPY**

**INVOICE #99ACU1110-4**

Accounts Payable  
Alaskan Copper Works  
628 South Hanford St.  
Seattle, WA 98134

RE: Project Metro Self Monitor, PO# M62918: Results of testing requested  
by Gerry Thompson for material submitted on October 28, 1999.

1 water sample analyzed for  
Chromium, Copper, Nickel, and Zinc  
using Method 6010 @ \$80 per sample

\$ 80.00

Amount Due .....

\$ 80.00

PLEASE NOTE: As a convenience for our valued clients, we can accept credit cards (VISA, MasterCard or government purchasing cards) for payment on our invoices. Please contact our office if you would like to take advantage of this service.

FEDERAL TAX ID (b) (6)

FRIEDMAN & BRUYA, INC.

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TEL: (206) 285-8282  
FAX: (206) 283-5044  
e-mail: fbi@isomedia.com

November 10, 1999

Gerry Thompson, Project Manager  
Alaskan Copper Works  
628 South Hanford St.  
Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on October 28, 1999 from your Metro Self Monitor, PO# M62918 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Dianne C. Hurt  
Project Manager

Enclosures  
ACU1110R.DOC